



Duquesne Light

Nuclear Construction Division
Robinson Plaza, Building 2, Suite 210
Pittsburgh, PA 15205

United States Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Mr. George W. Knighton, Chief
Licensing Branch 3
Office of Nuclear Reactor Regulation

SUBJECT: Beaver Valley Power Station - Unit No. 2
Docket No. 50-412
Outstanding Issue

Gentlemen:

This letter forwards responses to the issues listed below. The following items are attached:

Attachment 1: Response to Outstanding Issue 68 of the Beaver Valley Power Station Unit No. 2 Draft Safety Evaluation Report.

Attachment 2: Response to Outstanding Issue 71 of the Beaver Valley Power Station Unit No. 2 Draft Safety Evaluation Report.

DLC understands that the responses to NRC staff questions E451.4 and E451.5 sufficiently addressed the concerns raised by outstanding issues 117 and 118. Therefore, no further information will be submitted on these issues.

DUQUESNE LIGHT COMPANY

By E. J. Woolever
E. J. Woolever
Vice President

KAT/wjs
Attachments

cc: Ms. M. Ley, Project Manager (w/a)
Mr. M. Lacitra, Project Manager (w/a)
Mr. G. Walton, Resident Inspector (w/a)

SUBSCRIBED AND SWORN TO BEFORE ME THIS
13th DAY OF June, 1984.

Anita Elaine Reiter
Notary Public

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ANITA ELAINE REITER, NOTARY PUBLIC
ROBINSON TOWNSHIP, ALLEGHENY COUNTY
MY COMMISSION EXPIRES OCTOBER 20, 1986

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COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF ALLEGHENY)

On this 13th day of June, 1984, before me,
a Notary Public in and for said Commonwealth and County, personally
appeared E. J. Woolever, who being duly sworn, deposed and said that (1) he
is Vice President of Duquesne Light, (2) he is duly authorized to execute
and file the foregoing Submittal on behalf of said Company, and (3) the
statements set forth in the Submittal are true and correct to the best of
his knowledge.

Anita Elaine Reiter
Notary Public

ANITA ELAINE REITER, NOTARY PUBLIC
ROBINSON TOWNSHIP, ALLEGHENY COUNTY
MY COMMISSION EXPIRES OCTOBER 20, 1988

ATTACHMENT 1

Response to Outstanding Issue 68 of the
Beaver Valley Power Station Unit No. 2
Draft Safety Evaluation Report

Draft SER Section 7.4.2.1: Remote Shutdown Capability (excerpt)

FSAR Section 7.4.1.3 states that the design basis for control room evacuation does not consider a single failure. The staff finds the applicant's design basis for remote shutdown capability unacceptable. The staff requires that the applicant clarify the design criteria for remote shutdown and address the isolation, separation, qualification, and transfer/override provisions of the remote shutdown equipment in Section 7.4 of the FSAR. This is an open item.

Response:

Section 7.4.1.3 will be clarified in the next amendment to indicate that the design criteria for control room evacuation includes the single failure criterion and coincident loss of offsite power. Power sources for all Class 1E control circuitry of pumps and valves are powered from the same power source as that used in the main control room.

Separation of redundant train-related and non-1E circuits is maintained by barriers or appropriate air space. All control equipment (other than indicators) which is part of a Class 1E circuit meet the requirements of IEEE-Standard-344-1975, "Seismic Qualification of Class 1E Equipment," and IEEE-Standard-323-1974, "Qualifying Class 1E Equipment. Transfer of control to the shutdown panel is accomplished by transfer pushbuttons and switches on the shutdown panel. Transfer separates all control from the control room. Reset (override) is accomplished by hand reset transfer relays at the local relay panel.

ATTACHMENT 2

Response to Outstanding Issue 71 of the Beaver Valley Power Station Unit No. 2 Draft Safety Evaluation Report

Draft SER Section 7.5.2.4: Bypass and Inoperable Status Panel

FSAR Section 1.8 states that the design follows the guidance of Regulatory Guide 1.47. The staff has audited some of the design drawings that contain information on the bypass and inoperable status panel. However, there is little information in the FSAR to describe the system. The staff requests that the applicant provide the descriptive information in FSAR Section 7.5 to demonstrate conformance with Regulatory Guide 1.47. This is an open item.

Response:

Descriptive information similar to the following will be added to FSAR Section 7.5.5 in the next amendment.

The design philosophy for bypassed and inoperable status complies with Regulatory Guide 1.47 as described below:

- a. A bypass indicator is provided for each protection system. "Bypass" includes any deliberate action which renders a protection system inoperable.
- b. The indicator is at the system level with separate indicators for each train.
- c. The indicator is operated automatically only by actions which meet all these criteria:
 - ° The action is deliberate. (Component failure may be indicated by component failure indicators but should not operate the system bypass indicator.)
 - ° The action is expected to occur more often than once a year. This "more often than once a year" criterion is interpreted liberally. If an accessible, permanently installed electrical control device will bypass a safety system, it is assumed that the device will be used more than once a year. (Devices within the containment are not accessible.)
 - ° The action is expected when the protection system must be operable. (Bypass of source range flux trip during normal power operation would not, for example, be indicated on the system bypass indicator. It may be indicated on a channel or component status indicator.)
 - ° The action renders the system inoperable, not merely potentially inoperable. (If, for example, redundant, parallel, 100 percent valves are provided for the discharge line of a spray pump, the system bypass indicator would not be actuated by the

closing of only one of those valves. Valve closing may be indicated on a component status indicator.)

- ° Some deliberate action has taken place in the protection system or a necessary supporting system. (For example, if the cooling water inlet valve for a recirculation spray heat exchanger is deliberately closed, the system bypass indicator for the recirculation spray system would be operated.)
- d. The bypass indicators are separate from other plant indicators and grouped in a logical fashion.
- e. A capability is provided to operate each bypass indicator manually. This lets the operator provide bypass indication for an event that renders a safety system inoperable but does not automatically operate the system bypass indicator.
- f. There is not any capability to defeat an automatic operation of a bypass indicator. (Although, audible alarms may be silenced.)
- g. The bypass indicators are accompanied by audible alarm.
- h. The indication system is mechanically and electrically isolated from the safety system to avoid degradation of the safety system. No fault in the indicator system can impair the ability of the safety system to perform its safety-related function. The bypass indicators are not considered safety-related; i.e., they need not be designed to safety system criteria such as IEEE Standard 279-1971.
- i. The operator is able to determine why a system level bypass is indicated by accessing the plant computer.
- j. Service water system inoperative and diesel generator inoperative indicators are provided. These support systems are unique, and important enough to warrant bypass indicators.
- k. The system design meets the recommendations of ICBS-21 as follows:
 - ° Each safety system has a Train A (orange) and Train B (purple) bypass indicator. The indicators are grouped together by train on the main control board. Support systems have white bypass indicators and are arranged together with the associated train of bypass indicators.
 - ° Means by which the operator can cancel erroneous bypassed indications are not provided.
 - ° The bypass indication system does not perform functions essential to safety. No operator action is required based solely on the bypass indication.
 - ° The indication system has no effect on plant safety systems.
 - ° The bypass indicating and annunciating function can be tested during normal plant operation.